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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,332	09/02/2003	Jeffrey A. Graham	MTC 6867.11(39-21(53176)B	2928
321	7590	12/15/2005	EXAMINER CLARDY, S	
SENNIGER POWERS ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			ART UNIT 1617	PAPER NUMBER

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/653,332	Applicant(s) GRAHAM ET AL.	
	Examiner S. Mark Clardy	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-101 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-101 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/2/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-101 are pending in this application which claims benefit of US Provisional Application 60/407,479, filed August 31, 2002.

Applicants' claims are drawn to methods of making a water soluble glyphosate composition by combining particulate glyphosate acid, a base component (see claims 6, 7), and water to form a reaction mass in which forms a glyphosate salt, and then adding a dicarboxylate component (see claims 19-23, e.g., oxalate). Optional components may also be added (claim 25).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-101 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Massmann et al (US 6,605,568), Chin et al (US 5,070,197), Franz (US 4,405,531), and Turner¹.

Massmann et al teach solid state reaction processes for making ammonium glyphosate in which particulate glyphosate acid and ammonia are mixed to produce a reaction mass which generates heat which helps to dry the resulting ammonium glyphosate compound.

¹ Turner, D. J. "Effects on glyphosate performance of formulation, additives and mixing with other herbicides". Chapter 15 of *The Herbicide Glyphosate*. Grossbard et al, ed. p. 229-230. 1985.

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Chin et al teach dry reactive processes for making salts of acid pesticidal agents including glyphosate (col 2, line 46), by reacting them with any of a variety of bases including hydroxides, ammonia, and amines (col 3, lines 25-40) in an exothermic reaction (line 56).

Franz teaches that a large number of salts of glyphosate were known in the art, and that they are produced by reacting glyphosate with bases such as NaOH (Ex. 1), and other bases such as carbonates (Ex. 3). One of ordinary skill in the art would be motivated to replace the ammonia reactant of Massmann et al with other bases as taught in Franz in order to make other salts of glyphosate by means of a solid state reaction process.

Turner teaches that divalent and trivalent acids such as oxalic, citric, tartaric, phosphoric, and lactic acids enhance glyphosate activity, while monobasic acids do not (p. 230). One of ordinary skill in the art would be motivated to add the divalent acids of Turner to glyphosate salt compositions in order to enhance their activity.

Thus it would have been *prima facie* obvious to the ordinary artisan at the time the invention was made to have combined a base component with particulate glyphosate because the prior art teaches that this solid state reaction process was known in the art for making glyphosate salts from glyphosate acid and basic compounds. Further, the addition of divalent acids to glyphosate compositions was known in the art and expected to enhance glyphosate phytotoxicity.

No unobvious or unexpected results are noted; no claim is allowed.

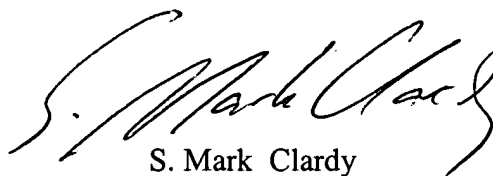
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 571-272-0611. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "S. Mark Clardy", with a stylized flourish at the end.

S. Mark Clardy
Primary Examiner
Art Unit 1617

December 7, 2005